

2002 Green Zia Company Profile

Sandia National Laboratories, Custodial Services

Sandia National Laboratories (SNL) Custodial Services has received Achievement recognition for the 2002 Green Zia Program year. Custodial Services employs approximately 80 people and supplies janitorial service for 480 SNL buildings containing 3.1 million cleanable square feet.



Custodial Services receives 2002 Achievement recognition from Governor Johnson.

"We chose to participate in the program to share our successes with other New Mexico organizations and to receive recognition for our employees' efforts in excellence."

- Ronald Maes



Pollution Prevention at Custodial Services

Custodial Services has a commitment to zero waste and zero safety incidents. Employees receive training in both these areas from day one. Custodial Services monitors all cleaning chemicals used for toxicity. Their chemicals are among the safest in the industry. They continually communicate with employees to improve safety and health issues. Custodial Services work together on a daily basis to reduce repetitive stress and hazardous situations.

Custodial Services plans the following P2 activities:

- Training in Green Zia tool for continuous improvement
- Enhance employee involvement and community interaction

Successful Approaches at Custodial Services

Custodial Services' mission is to provide janitorial services to SNL. The mission they have set for themselves is to provide this service with excellence in cost effectiveness, safety, environmental awareness and efficiency. Their vision and values can be summed up in their "Philosophy of Cleaning" which is presented to all employees during training. See Figure 1.

Figure 1

Philosophy of Cleaning

- Clean for health first, then appearance
- Treat cleaning workers as first class citizens
- Simplify, Simplify
- Go Beyond Compliance on Safety regulations
- Minimize environmental Harm

Results

- Hazardous waste generation has been zero since the last quarter of 2000. They use to generate a hazardous waste stream of expired cleaning chemicals. Their new chemical control and inventory process, as well as a dedication to the concept of zero waste, has eliminated this waste stream.
- Negotiated Sale of Cleaning Chemicals and Equipment: This sale provided usable cleaning chemicals to local janitorial business and prevented the generation of 130 kilograms of hazardous waste. They also sold one and a half semi-loads of equipment to local businesses.
- Improved chemical inventory control reduced overall chemical purchases by 88%. In 2000, they used over 119 different chemicals. They now use 15. Using fewer chemicals provides several advantages. Hazard communication training is much simpler as well as management of Material Safety Data Sheets. Industrial Hygienists can more easily evaluate such a small number of chemicals. Also, since chemicals are tracked much more closely, they don't expire and become waste.
- New mop buckets were identified through systematically evaluating all cleaning equipment. These buckets allow cleaning water to be used longer and so reduce chemical use and purchase by 20% over previous methods. The buckets hold less water and also reduce potential injuries from lifting heavy buckets.
- Recycling: 200 broom handles, 200 restroom barriers have been recycled since 2001. The broom handles are sent to a local compost company that grinds them to make mulch and compost. The restroom barriers are disassembled. Metal parts are sent for scrap metal recycle and the plastic parts are sent to a local plastic recycler.
- Re-use: 180 gallons of bleach were donated to treat the Kirtland Air Force Base pool. This prevented the generation of hazardous waste.
- Zero Lost Work Days: Figure 8 clearly shows the results of a focus on health and safety. In 2000 71 lost work-days due to work-related injuries were recorded. As of the second quarter in 2002, there are none.
- Easier, More Efficient Mopping: In 2001, riding floor scrubbers were purchased. These scrubbers replace the slower and more arduous hand-mopping that was used previously. These new scrubbers made the custodians work so much simpler that a 30,000 square foot per hour increase in efficiency was realized in floor mopping. The riding scrubbers also reduced motion and lifting stresses.
- Improved Overall Efficiency: In 1995, Custodial Services was responsible for 2.7 million cleanable square feet that were cleaned at a rate of \$2.19 per square foot. In 2002, they are responsible for 3 million cleanable square feet that are cleaned at a rate of \$1.23 per square foot. This increase translates overall to a 10,000 square foot per employee increase in efficiency.
- Re-Use of Cleaning Chemicals and Excess Equipment in Local Community: The negotiated sale of excess cleaning chemicals and equipment not only reduced waste, but also benefited the local janitorial business by providing low cost supplies at a greatly reduced cost. The negotiated sale process is very difficult and time consuming in a government facility. It would have been simpler to dispose of the material as waste.
- Chemical Donation: Donating bleach as a pool treatment to Kirtland Air Force Base benefited local community and the government.
- Negotiated sale saved \$141,000 through avoided disposal costs.
- Overall efficiency improvements saves \$2,880,000 dollars in budget annually.

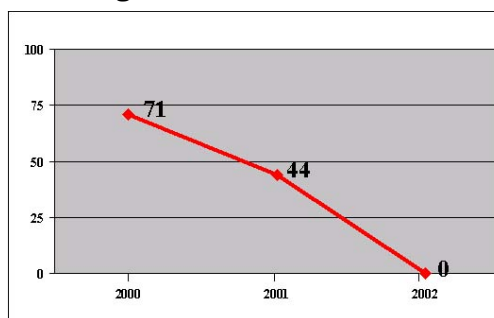


Figure 8— Lost Work Days

If you have any questions about the Green Zia Program, please contact:

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